EXTERMINATORS LOG

MAY 1935 "Don't Tolerate - Exterminate" VOL. 3, NO. 5

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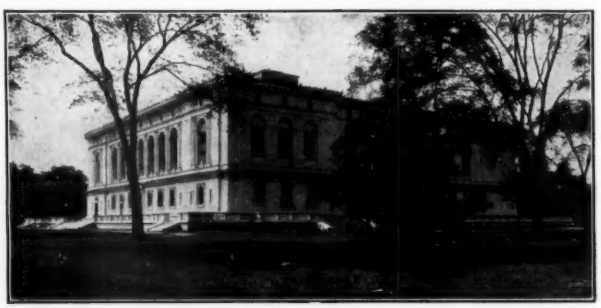
Detroit—The Convention City

OCTOBER 21-22-23

A few of its beautiful scenes

Early American Village

Greenfield Village, as it is known, is located in Dearborn. This is Henry Ford's institution. The historical village centers in "The Green" as do all colonial communities. About this spot stands the public buildings, the church, the school, the inn, the store, the Courthouse and Town Hall, which comprise the famous Edison reproductions.



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EXTERMINATORS LOG

A Magazine Devoted to a Cause to Which Mankind Is Indebted

Al Cossetta, Manager and Editor | J. W. Smith, Associate Editor

Cooperating With the National Association of Exterminators and Fumigators, Inc.

Vol. 3 | MAY, 1935 | No. 5

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ACTIVE: Open to any person, firm, association or corporation engaged in the service business of eliminating and/or controlling vermin, rodents, insects, germs, other pests and odors by the process of extermination, fumigation and/or disinfection. Dues $10.00 yearly.

Associate: Open to subsidiary firms of an active member firm engaged in the service work as above described. Dues $7.50 yearly.

Allied: Open to any person, firm or corporation, manufacturing or supplying products and/or materials for use in the exterminating and/or fumigating service trade. Dues $10.00 yearly.

For further details, communicate with

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Editorial

EFFICIENCY

For the last few months, the Log has been publishing editorial articles dealing with the importance of having a thorough knowledge of our profession.

Since there is an awakening among the members concerning the profound necessity of being efficient and adept in the work, it behooves the Log to publish more of such articles, so that members of the industry may have a better conception of its importance.

One of the most important developments in the exterminating and fumigating industry, is that we have learned that it is impossible to train a worker, in a short time, to be as capable in servicing buildings, apartments, homes, etc., and as efficient in the work as one who has spent many years in the field. A reliable and dependable concern cannot afford to jeopardize its valued reputation by sending out men who are half or partly experienced in the work which they are sent out to do.

When members mention the fact that they belong to the National Association, the public is forcibly impressed that they must be reliable and dependable, or else they could not belong to the Association. They recognize that any worthwhile National Association stands for true principles and for protection.

Recently there has come to our attention several experiences from some of our members who were about to lose several contracts because of lower prices. When the customers were told of the membership in the National Association, the members were awarded the contracts at higher prices. These experiences demonstrate that there is prestige derived from belonging to the Association.

The public is becoming educated and also learning to depend more and more on organization. They realize that National Associations protect them from unscrupulous business methods and protect the members from those who would make unwarranted inroads into work that rightfully belong to their profession.

Therefore, it is of the greatest importance that members of the industry be vitally concerned as to their efficiency and service they render to the public. Is it not high time that the industry renders excellent service and quality work to the public?

The world is teeming with thousands of men who shift from one thing to another, untrained and unskilled, and with little, if any, thought of the quality of service they render, and many customers are worn out with the dumbness of some service people with their absolute unfitness for the work with which they are charged.

Inefficiency has become a world-wide problem, and is very apparent in the more specialized vocations and occupations that men are endeavoring to enter. Someone has said, "The Signboards marking the way to usefulness are Honesty, Industry, Efficiency, Loyalty, Perseverance." Surely these are valuable assets and qualities that are sorely needed in any business.

Much could be written on this subject, but suffice it to say that whatever and wherever work is involved, it requires the definite capabilities of trained and experienced men who are efficient and adept in their work. Seek to acquire the reputation of efficiency in your work, and you will gain by it.

PONDER OVER THIS ONE

"The man who chisels prices, chisels his own tombstone." During the course of an address by Mr. James M. Sheridan, before the California State Convention of Exterminators and Fumigators, at Pasadena, March 16, Mr. Sheridan mentioned the above slogan that is being used by the baking industry.

If this slogan were repeated often enough by some exterminators and fumigators, it might provoke a change in practices. Try it out.

A RETURN OF IDEALISM IN BUSINESS

By WILLIAM O. BUETTNER, Secretary
National Association of Exterminators and Fumigators, Inc.

We were fortunate in being privileged to read the complete minutes of the California State Convention of Exterminators and Fumigators held at Pasadena, March 16th, 1935. In addition to the educational value of the speeches dealing with the technical phases of the industry, there were other notes struck. It will not be our intention to comment upon the technical aspects in this column, in that the text of the addresses will be printed in the Log.

The purely business side was stressed by some of the speakers. To quote Mr. Walter Putnam:

"The thing that has come to me most forcibly in the last three or four years is the growing desire of people for **cheapness.** Almost every job that comes into the office, they want to know how cheaply the work can be done and get by. We are today suffering from a long line of cheap work. I, myself, grew up at a time in engineering when the ideals were high—not as high as could be, and not as high as they will be.

Following the World War — and I guess it preceded that a little, too — we got to the place of worshiping the "almighty dollar." It is a good thing to have and I could use considerably more than I have, but it should not be the highest ideal of our lives. We even got to the place where we measured a man by the number of dollars he had, without too much regard as to how he got those dollars. Just so he got away with it, it was all right. We have, as a result, lost that pride of workmanship we used to have and today the skilled mechanic along any line is not giving his best and is rather a rare article and hard to find. My own opinion—and it is borne out by many of my friends—is that money in itself does not bring happiness. Many of the happiest people, you know, have the smaller quantity of material wealth. I know of many people in my own experience who have attained to great wealth, and it has in almost every case brought shipwreck to their lives."

There has been an impersonality about much we have done in recent years. The machine age has played its part, but for a profession which shall maintain much of the idea of personal service, it is hard to conceive that a successful exterminator or fumigator

can get along without knowing his competitors of the industry. An all sufficient attitude of oneself is not to be commended. Consideration for the next fellow is important. It is realized, however, that many have become skeptics when it comes to cooperation in that the genuine attitude of cooperation has not prevailed amongst ourselves as competitors. Men attend a meeting or sit around the dinner table with competitors and in principle certain things must admittedly be done to raise the plane. One of the group "runs out" and does the very thing it was decided should not be done. It is small wonder then that others receive a "set-back"—certainly momentarily—feeling that there is no use in organization. Local associations cooperating with the National Association of Exterminators and Fumigators and many firms where no local association exists and join the National Association are beginning to feel headway is being made.

We did not know each other, we are beginning to know each other. We called each other names none too complimentary and meant it, but gradually this is being changed to "live and let live" when competition is clean and by our first names we greet each other and happy to do so. We thought we knew it all and now admit there is much that can be learned. One section of the country mistrusted the motives of the other section and gradually we are realizing there is much that each of us can contribute to the other. We felt ourselves snug and secure in our own four walls (this city or that city) and our eyes have been opened to know that in all other fields of endeavor through government and organization, comparisons are constantly being made and one is copying from the other. We hated to be called bug-chasers and insecticide dispensers and rat killers, and now we are awakening to the fact that we are actually a second line of defense in public health service.

The ideal now is to carry on further—help each other. Some house cleaning must still be done. A "Clearing House" helps in the process of "House Cleaning." The National Association can only do its part as the industry gives support.

YOUR ASSOCIATION

By Thomas C. Raley, President
National Association of Exterminators and Fumigators, Inc.

"Every trade of any importance today has a National Association, and the development of Trade Associations during the past twenty-five years can certainly leave no business man unconvinced as to their value." This statement forms a part of an attractive booklet issued by the National Association of Insecticide and Disinfectant Manufacturers. The same story is being emphasized by others and none of us can discount the value of organization whether it be **Local** or **National**, or a combination of both.

If we, the National Association of Exterminators and Fumigators do not foresee and plan ahead for our future progress by adopting and putting into practice the most progressive methods being advocated by men who for years have been studying these systems and means for improving the existing conditions in the Industry of the Exterminator, Fumigator and Pest-Control Operator, we are sure to suffer, sooner or later, the loss of prestige which some have attained through years of service to the public.

We must take time to Stop, Look and Listen when the warning signal is being given, as it seems to have been given of late from different sections of the country, from Southern, Eastern, Western and Central States—the entire country.

There are pending today in several states certain proposed state laws of regulation affecting this industry. Some, if passed, would prove a hardship. Some other proposals deserve much merit. The other problems of insurance, C. W. A. rodent control, etc., are other matters requiring attention. Unless the industry in general is wise enough to cooperate with a strong National Association — a general clearing house for the industry—it can only be expected that certain legislation will pass that should not.

INSURANCE

Elsewhere in this issue are comments on the subject of insurance, based mainly on Communication No. 10 which was sent by the National Association of Exterminators and Fumigators to all firms throughout the country and was published in the April issue of the Log. Much favorable comment has been received as to the constructive approach to this problem. Among the comments the following letter will serve as an example of the attitude of one who has given this problem almost as much thought as many firms of the industry have given to it:

TREASURY DEPARTMENT
United States
Public Health Service
Quarantine Station
New Orleans (Algiers), La.
April 22, 1935

Mr. Thomas C. Raley,
1139 Pine Street,
St. Louis, Missouri
Dear Mr. Raley:

I am writing to you, as president of the National Association of Exterminators and Fumigators, to express my admiration of the excellent editorial on insurance that appears in the April issue of the Exterminators Log. It is evident that you and the other officers of the National Association have gone a long way towards solving the insurance problem, which is, I believe, the most important step in formulating reasonable and uniform regulatory laws. Please accept my congratulations.

Yours sincerely,

C. L. Williams,
Senior Surgeon, U. S. P. H. S.,
Medical Officer in Charge.

SUCCESS OF CONVENTION ASSURED

The men of Detroit are leaving no stone unturned to make the annual convention of the National Association of Exterminators and Fumigators, Inc., a success next October 21-22-23. The following telegram was received:

Detroit, Mich., May 1st, 1935,
William O. Buettner,
3019 Ft. Hamilton Parkway,
Brooklyn, N. Y.

THE DETROIT EXTERMINATORS AND FUMIGATORS IN MEETING ASSEMBLED SEND GREETINGS TO NATIONAL OFFICERS STOP COMING CONVENTION WILL BE BEST EVER STOP ENTIRE INDUSTRY IN DETROIT PLEDGE ONE HUNDRED PERCENT SUPPORT STOP DOLD WAS PRESENT.

C. R. LEE, Detroit.

President Thos. Raley of the National Association has given us a valuable thought in the editorial.

Insect Life in Relation to Public Health

By MR. M. S. SEIGEL, Los Angeles City Health Department

EDITOR'S NOTE: *The First Annual State of California Convention was held at Pasadena March 16, making it possible for the industry of California to listen to several prominent speakers. Mr. Siegel of the Health Department of Los Angeles had previously given an address on "Rodent Control" before the Local Association of this state before one of their monthly meetings. The address delivered at the State Convention on March 16th has much that should interest the industry at large. The Log is pleased to print the article in its entirety.*

My subject deals with the relationship of insect life to public health. I realize that you gentlemen are interested and you are engaged in the work that deals entirely with extermination of insect life, whether or not it has a definite public health or economic relationship. In my position I am in no manner—much as I would like to be—blessed with the opportunity of doing as much research as I would like to, whether or not the problem at hand is economic or deals with the question of public health, and necessarily I am limited to the public health field and I know very little about the economic side of insects, other than in certain limited areas or fields.

You all know that for purposes of classifying and grouping and determining the best methods of the eradication and control of insects the United States Government maintains several bureaus and departments. It maintains the Bureau of Entomology in the Department of Agriculture. For the further purpose of determining the potential capability for harmfulness of such insects and their ability to infect man or animals with disease, either from the direct bite or resulting from pathogenic micro organisims which the insect may and does transmit, the United States Public Health Service as well maintains a laboratory corps which is subdivided into a division of pathology, bacteriology and zoology. Now these by no means are the only authoritative sources of information or research in these particular fields, as practically every university in the United States, and especially those maintaining colleges of medicine, either teach or maintain such laboratories both for the purposes of study and for purposes of research. In addition to that, there are private foundations that conduct experiments and research along these and similar lines, as witness the Rockefeller or Hooper Foundations in this country.

Now then, you all realize that there is a lack of time for me to go into insect life in detail so I will limit my remarks to just a few of the insects with which public health concerns itself very, very deeply. Someone has rather facetiously remarked that from a sociologic standpoint the present age may be called the "age of insects." There is really more reason in that statement than might appear at first when we recall that the species of insects out-number the species of all animals combined; that the insect pests in this country alone cause an estimated loss of over $1,000,000,000.00 annually; that several hundred trained men in the United States are giving their entire time to a study of these pests. And when we realize that perhaps thousands of letters are sent each year to our government agencies, requesting information regarding insects and means of fighting them, we cannot help but realize and become quite impressed with the importance of the relation to man of these tiny but multitudinous forms of life.

Since the epoch making discoveries that mosquitoes carry malaria and yellow fever insects — especially those frequenting the household—have assumed a most unexpected importance. The hum of the mosquito and the buzz of the house fly have become fraught with an entirely new significance, and the dog and the cat, with their burdens and fleas, have taken on a new aspect and appeal to us from an entirely new viewpoint. The kitchen drain, the open cesspool and closet, the barnyard manure pile, the horse stable and the hog pen present entirely new problems to the occupants of rural homes, from the insects that originate in them. One neglected manure pile can furnish enough flies to over-run several households all summer through. An open kitchen drain can afford breeding places for enough mosquitoes to change pleasant summer evenings into hours of torment and displeasure.

I will attempt to give you some of the relationship that exists between certain insects and human inmates of households and, wherever possible, the most practical method for their eradication or preventing the injuries caused by these small pests. Of course, as before stated, no attempt is made to treat all the insects that may invade the household, only a few of the more important ones being discussed. Other insects may sometimes enter our houses and cause annoyance or injury, but they are usually of minor importance compared with those here discussed. By minor importance I mean economically of minor importance to public health or from the public health point of view.

Now first in order comes the ordinary house fly. There are no more universally annoying insect pests than are the house flies. They are present from early spring until late fall and even remaining far into the winter. Until comparatively recent years the fly has been regarded as a scavenger of value to humanity because of its aid in removing wastes that are a menace to human welfare. On the other hand, it has been conclusively shown that house flies carry the germs of cholera, typhoid fever and tropical dysentery, tuberculosis, and practically every other type of communicable disease, on their feet, legs, bodies and in their digestive tracts. There can be no doubt of the responsibility of the fly for much sickness and many, many deaths.

The best method of controlling the fly's propagation is by cleaning away the waste matter on which their eggs are usually deposited, such as the piles of stable manure, rotting straw, manure in barnyards, kitchen refuse or garbage cans and barrels, manure piles about pig pens, poultry houses, and human excrements lying in privy vaults or pits, and, in fact, in almost any decaying vegetable matter that lies long enough in one place to ferment and decay.

In addition to cleaning these objects away or while stored, a treatment consisting of chloride of lime or kerosene oil or solution of iron and sulphate at the ratio of about two pounds in a gallon of water or two and a half pounds of dry sulphate per horse each day will kill the maggots when mixed with manure. Of course, the familiar use of fly traps and insecticides and the screening of homes and keeping no windows or doors opened unless screened are the most popular methods employed, but these are of no avail unless the preventive methods here outlined are religiously followed.

Next in order is the mosquito. Now the mosquito is really a kind of fly, not unlike the house fly except in size and in its power to bite. Mosquitoes are no more abundant today than they were hundreds of years ago but much greater interest is shown in them because of their relation to certain diseases. There are known to be over 500 different types of mosquitoes in the world; over sixty of these species occur in the United States. Not more than half a dozen of these are at all common about our houses. Only three of them are known to carry malaria and only one is concerned in disseminating yellow fever. Mosquitoes are found both in salt and fresh water. Areas of greatest infestation by these pests are usually found along sea coasts. Many of our common inland species belong to the genus culex or the pest variety. So far as known, none of these are disease carrying. There are several species belonging to the genus anopheles in the United States but apparently no one of these species is capable of carrying all the different types of malaria. Finally there is one species of mosquito known as the aedes cholopes, commonly called the Stegomyia, that is the proved carrier of yellow fever.

The culex mosquito breeds in almost every place in which stagnant water may be found, in quiet pools, in roadside ditches and hollow stumps, in rain barrels, cisterns, tin cans, watering troughs and similar receptacles for water. The anopheles is one of the species of the United States that is definitely and positively known to be the carrier of malaria. It is widely distributed and breeds under the same conditions and circumstances as the culex or the pest variety. The mosquito that carries the yellow fever is found only in the warmer countries in several parts of the world and is common especially in the southern part of the United States and certainly as far north as Virginia. In the past there have been epidemics of yellow fever in New York City and Philadelphia. It would seem, therefore, that this mosquito must have occurred as far north as these cities. Two theories may then be advanced; either the mosquito migrated during the warm summer season or has been imported by means of ships or other means of transportation.

Now in destroying the mosquito larvae it is wise to determine what sort of a mosquito it is. The metamorphosis of the life of a mosquito consists of the deposit of the eggs, the larvae, the pupae stage and the adult. The culex larvae will float in a vertical position in water, whereas the anopheles larvae floats in a horizontal position. Now the stegomya, or the yellow fever mosquito, is what may perhaps be termed a pretty handsome looking insect. It may be recognized when fully grown by the fact that its legs, thorax and abdomen are banded with conspicuous silver stripes. The anopheles or the malaria mosquito is

somewhat larger than the culex when full grown and its wings are heavier and present a spotted appearance owing to distinct patches of white scales.

In all instances of mosquito bites it is the female of the species that transmit the disease by puncturing the skin of the victim with bristle-like organs in its feet. While puncturing the skin an irritating poison, the chemical nature of which is not known, is injected into the wound. This poisonous substance causes an itching sensation. The immediate area turns red and becomes inflamed and in case of some persons much swelling follows. The itching may be relieved by the application of dilute solutions of ammonia or a five per cent solution of carbolic acid or a one per cent lotion of menthol.

Mosquitoes may be controlled by many methods, such as draining or filling of ponds, pools, or other bodies in which insects breed, or by turning barrels, tin cans or other useless receptacles bottom side up. Rain barrels or tanks may be covered with galvanized iron netting at least fourteen meshes to the inch so as to prevent the mosquitoes from laying their eggs in the water. In the case of pools or tanks that cannot be drained or that it is not desirable to cover with wire, fishes may be introduced which will destroy the wiggler. For example, gold fish, sun fish, or certain minnows will serve a good purpose in keeping pools free from mosquito larva. Of course, we all know that the use of bed nets or mosquito repellants such as various mixtures of oils, as for instance oil of citronella, are simple to help one, a comfort while in bed or while outdoors in the night season.

The next insect of importance is the bedbug—the lowly bedbug. Now this insect has apparently been associated with man as long as man has slept in beds. This insect was well known to the Romans and they gave him the name of chimax. At one time, if you will examine ancient books on medicine, you will find that Pliny, in writing of the bedbug's medicinal qualities, attributed to it a special potent cure for snakebites. It is interesting to note the various names that are applied to it in some parts of the country. In parts of the south it is known as the chinch. In New York City as the red-coat while in Baltimore he is given the aristocratic title of "mahogany flap."

The bedbug is disseminated through so many different sources that it is useless to attempt to describe them. The most common methods are by means of trunks and bags while traveling and in cities where buildings are close together. Bedbugs will actually migrate from one house to another. The bedbug prefers human blood to all other food. Under certain conditions bedbugs will attack lice or live mice and gorge themselves on the blood of these animals. Perhaps it is not too much to say that the bedbug will eke out an existence in deserted dwellings for a considerable period of time if mice are present to serve as occasional hosts.

The bedbug is under grave suspicion as being an active agent in the transmission of several diseases but it is a difficult matter to prove him guilty. It is thought that the bedbug may transmit Overmeyer's relapsing fever, a disease that is quite prevalent throughout Europe. Dutton has also shown experimentally that the bedbug may spread typhoid fever. When a certain bug or bugs were infected by feeding on the blood of a person in the acute stage of the fever, they retained the celli in virulent condition for forty-eight hours. Riggs has adduced some later evidence of the relation of the bedbug to this fever.

The most effective method of getting rid of this pest is by fumigation with hydrocyanic gas. This gas, however, is the most deadly known, as you all know, and should be handled by no one other than the licensed fumigator or exterminator and who should be specially well versed in its use and acquainted with its dangerous proclivities.

Next in order comes the cockroach, who, like the bedbug, remains hidden during the day while occupants of the building are actively about. When the kitchen and pantry are deserted and dark, however, the insect comes forth to forage. There are four principal kinds of cockroaches in America. No particular capabilities for harm may be ascribed to this insect other than the fact that he is a disgusting sight and should be gotten rid of. The most effective way to rid the house or premises of him is also by the use of hydro-cyanic gas. But good results are obtained from the persistent use of powdered borax mixed with a small amount of powdered sugar and sprinkled freely in the kitchen, in the crevices along the sink, along tops of baseboards and similar places. (We wonder why sodium fluoride and pyrethum were not included. Editor.)

Then comes the ant with their well known proclivities of ant work and following the leader. As is well known, the typical colony of ants consists of the queen, the males and the workers. The queen is the mother of the colony, but in no sense the ruler. Her only business seems to be laying eggs which hatch into workers and other forms that take the place of those that disappear or die, and thus she maintains the full and continuous strength of the community. The workers, which are undeveloped females, are wingless and constitute the great majority of ants that may be seen running about in the vicinity of an ant nest. The

(Continued on page 14)

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History of Termites and Termite Control

By MR. WALTER PUTNAM

EDITOR'S NOTE: *Mr. Walter Putnam, Pasadena, California, Building Department. This address was delivered at the California State Convention of Exterminators and Fumigators at Pasadena, March 16th.*

In introducing Mr. Putnam, Mr. Wilbur F. Smith, Chairman of the Convention Committee said in part: "A great many operators are engaged in Termite work and it first received its impetus here in Pasadena —being a real Pasadenan, of course, everything is 'here in Pasadena.' I hate to say these PESTS *got started here in Pasadena and that this was the center, but you know what I mean anyway. And the man who d'd the most on this, the first man who really 'stirred up the kettle' and the first really to create interest in it, so that it spread, not only locally, but through the entire State and the entire Country, is a man of Pasadena, and he is a man who, I feel, has done more for Termite Control than any other man in the country, and I believe he is the man best able to talk to you on this subject, 'The History of the Termite and Termite Control.'" The Log takes pleasures in publishing much of Mr. Putnam's article.*

When we first discovered termites in Pasadena, we found them in a building built a number of years ago. They were up in the roof, and the contractors called me and said something was spoiling the roof on this special building. I had the idea it was termites doing the damage.

I did not know they were native; I thought they were imported from the Tropics. I hunted in the library but I could not find anything new about them, and so I wrote to Dr. Snyder of Washington. He sent information and Dr. Light of Berkeley and Stanford and other places sent information, and I got the impression they were all over the United States, but with no suggestion as to how to meet the problem. People did not know.

I went to the City Manager and asked him for an appropriation for three or five hundred dollars to go out and hire the best man I could get hold of, to investigate public buildings and see what the damage was. I could not find anyone I could hire with the amount of money I had, so I hired a young man who was willing to work. He went up and down the street, going to public buildings and churches, schools, hotels, and buildings of that kind. He was to crawl under and when he found something. he was to report back. And when we would go crawling through these buildings hunting for termites, we had a great deal of criticism and publicity, you may be sure. I did not start the publicity but I got the credit for it.

But one of the auditors in the City Hall went to the basement for a tax record book, and only pieces of the book were left, all the rest was chewed up by termites. The reporters found it out and the result was it was in the paper the next day. And as a result of this, with my correspondence with Doctors Light and Snyder and a group in San Francisco that had been associated with me a number of years before, we found out the trouble was termites and that it was serious, not only in Southern California, but in Central California as well.

But they found no information as to how to meet the problem, and so five or six of them got together in the office of A. A. Brown, the Chief Engineer of the Hawaiian Sugar Company, and they organized a Termite Investigation Committee and got together men who financed it with so much money. They had to have $60,000 to carry this through, but they needed $65,000 before they got through. They appointed a man at the head of the Zoology Department of the California University in charge of the Zoological work, and appointed Dr. Light as his assistant, who was employed in the Department of Entomology, to go to the field and make a survey and to find out how extensively the termites were distributed over California, how many varieties there were, what kinds and what types and their potential assets, and so forth.

At the same time they sent out other entomologists to study the life habits of termites and to find out every possible means of curtailing their work.

The Southern California Edison Company and the Telephone Company and the Santa Fe and other companies which were large users of wood, "chipped in" on this; the Edison Company offered us quarters in their plant in Alhambra, the Telephone Company did the same thing in Los Angeles, and the railroads gave us trucks to experiment with. We put in three years of very intensive work and as a result of that, the information which you now have was made available for your use. It was all collected together and gone over carefully and checked and rechecked, and a great deal of laboratory work was done, and as a result you have the report of this Termite Investigation Committee, which is today the most comprehensive work on the subject in the world. There has just been put on the press a revised edition of that report. I have not seen it and do not know what revisions have been made.

I believe people have no idea of the amount of work involved in that kind of thing. They have had to run thousands of tests of different chemicals to see how the termites would react to the treatment, and nothing was left undone they could think of doing. One of the things that has come out of that is the use of "dry powder" for the dry wood termite.

I believe the damage caused by the Dry Wood Termite is only one-tenth of that caused by the subterranean type, but you know how to handle the subterranean type, as you can get under the building and you know how to cut him off from the building so that, although he may be in the ground, he cannot get to the building.

The Dry Wood Termite can work in any piece of wood as long as it is not too hot. He breathes in the wood and he gets into the holes he has made in the wood and closes the holes behind him and you have to hunt very carefully to find him. Some observers have reported they have seen him boring in the wood and closing the hole in the space of twenty minutes. I have never seen anything like that myself.

We find the Dry Wood Termite scattered over wider and wider areas. A number of years ago, during the period of the Dry Wood Termite, I drove around town and with no special location in view, but just at random I visited ten jobs under construction—and they were scattered all over town. I stopped and investigated the lumber-piles, and found termites on eight of the ten jobs, just by a cursory look. We drove over a section of this part of the country and found the same thing. We spent days doing that kind of thing, and as a result of that I believe that possibly 75 or 80 per cent of the things we build during this period of the Dry Wood Termite is infested before it is finished, and there is always a chance afterwards of them doing their work. There are always cracks and crevices in any building you can possibly built which are an invitation to a swarming pair of termites. It is just exactly what they are looking for.

I believe the next ten or fifteen years will show a large increase in the amount of knowledge as to how to treat this pest. At the present time we have only one method of treatment, that is the Dry Powder Treatment, and it is a success if you find the colony, and not find only the one colony, but you must find every colony, for the treatment of one does not affect all. If you treat one timber, you only shut off one colony.

The Termite Investigation Committee saw that situation and are aware of it as the work goes on, and they agree that the potential hazards from the Dry Wood Termite are greater than the hazards of the Subterranean type of Termite.

We are trying to find some way to detect the colony on the dry wood. Some conceived the idea of building a microphone that was sensitive enough to catch the sound of the termite in the wood. Some of you know of this, I am sure. So they got hold of the engineers of the American Telegraph and Telephone Companies and went to work for a month and they finally developed an apparatus by which they could hear the termites working in the wood. But there are so many other noises the instrument picks up, noises so much louder than the tick of the termite on the wood, that the termite noise is drowned out. They then thought they could get out an instrument to drown out the other noises, but after a year of intensive work the thing was dropped and I believe nothing has been done about it since.

The is no other way than to bore holes and look for a colony, and even when you do find it you do not know whether you have gotten every colony, how many colonies there are, or how to look for them. All these things add to the difficulty of extermination. I still have hopes that some day somebody will invent something to locate those colonies accurately, then it will be just as easy to exterminate as is the Subterranean Termite, and until that time we will have to muddle through some way.

The Termite Control Investigation Committee's work was finished two or three years ago. It was as far as they had funds to go. The panic came along and funds were no longer obtainable for research work. But in spite of that fact university men carried on research work very efficiently and in an active way and to the best

of their ability. I never go up to Berkeley that I don't find them working at some new thing, and if you ever go up to Berkeley look up Doctor Light and others there who are working along this line, and you will find they are doing some very wonderful things.

There is one point I want to bring out, however, that is extremely important, and I voice also the opinions of the most important and well-informed men in the group that form the Termite Investigation Committee, and *that is the danger from the large use of arsenical poisons.*

The committee from the start has been concerned over the widespread use of arsenious poisons. They do not recommend the large use of arsenic, and these recommendations, coming from the powers of entomology, carry great worth. Although it is the only method known of meeting the termite attack, the work of the Termite Investigation Committee was to search for other methods of control, and quite a number of other chemicals have been used as experimental exterminators and have been tried out and have proven effective and their use does not carry that hazard to human and animal life.

One thing came out in the last two or three years, perhaps not widely known. It was found that a certain variety of fungi was working on the arsenical application and was generating arsene gas, one of the deadliest gases. There was a case in court —at least one—where there were three deaths from arsene gas, produced by the work of the fungi on the arsenical coloring. There was a family in poor circumstances and three of the children died under rather mysterious conditions, and the analysis showed they had died from arsenical poisoning. The father was arrested and was accused of the murder and brought to trial, and the case aroused a great deal of controversy, and a large amount of investigation was made and various opinions advanced. Finally it was proved their deaths were caused by "arsene gas," produced by fungi working in the wallpaper on the arsenic. The walls were damp and the house was not well built, and the fungi were growing in the wallpaper. The arsenic in the green coloring of the wallpaper had produced arsene gas. Arsenical poison is a cumulative poisoning, it does not always produce death at once, but eventually it causes serious trouble.

The University at Berkeley has done a large amount of research along this line, and they find that fungi produces this arsene gas. A few months ago a man from the north was down here and he had a test tube with him and demonstrated termites producing arsene gas from arsenic.

I, myself, before this came up, believed that fungi could not live in the presence of arsenic. That is something we should think of. As you know, our State Department of Health has been waging a hard battle against practically that same thing—to keep arsenic from getting into our food supply, such as green vegetables, and this is apparently along the same lines. However, I shall leave it for your consideration.

The more I look around the more important it looks, the way people are taking up and looking into this subject, and I am glad to see the way you are putting this thing over.

There then followed an open forum at which Mr. Putnam answered the questions that were put to him by those in attendance.

QUESTIONS AND ANSWERS

Is treatment of the lower timbers any protection against termites?

It does give a certain amount of protection, but we all know the termites will get over the lumber every time. If you were to use pressure treated, you would have to use empty cell—that is, a wood that is thoroughly impregnated and in which all the cells are filled with the test and all the oil extracted from the cells, leaving the creosote. Wood, so treated would dry in not a great length of time and the termites would bridge it over, and as a result you have made unusual for the termite the wood which is easy for you to treat—you have only forced him to go to the upper structure, above the first floor, into the studs, etc.; and, if you go to investigate, you have a difficult time to handle them.

I advocate that if anything of the kind is required (and I do not think it is required) there should be a complete sealing at the first floor level. You should put in a metal-lathed ceiling, plastered. With the modern methods of construction it is not so pleasing, for the average man who builds today has not the money to spend for something of the kind which would be very nice, but not essential. The subterranean termite hazard is small and easy to handle and the treatment of the lower timbers is of no protection.

(Continued on Page 10)

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Does pressure treated lumber lose its strength?

Pressure treated lumber has been treated by the markets for fifty or sixty years. I was brought up in the creosote business. My father had the first creosote lumber and he sent it all over the world, and we had no trouble from its losing its strength. We had one job in Colombia, South America, that was put in in 1893. The last I heard of it, three or four months ago, it was in A-1 condition, and that is, as you know, in the hot part of the tropical climate. That was full-cell treatment wood.

Does sealing under a house interfere with plumbing?

There are a number of methods of sealing under a house, but you will always find that the owner wants plumbing done, and holes are punched into it. There may be concrete slabs under, but they will come up through the cracks.

Have you had any experience with the zinc chloride treatment on wood?

No, not personally. It is excellent as a preservative. The tests in the United States show it to be termite proof, but at least under some conditions they will attack it. Probably the most outstanding work in testing preservatives is being done by Dr. Snyder of the Entomology Department at Washington. Just across the river from Washington, in Virginia, there was a place badly infested with native termites, and he simply stuck these treated sticks in the ground and left them there for a while. Later on, with the building of the Panama Canal, and that is the worst termite infested country in the world and more varieties, they are working there now on the island, and he has samples of the wood used for test. They are 2x4 posts, put in the ground and examined every six months of the year to see what happens to them.

The Redwood Association furnished a modern house to be set up, but the result I never heard. I do know that the Dry Wood Termite apparently, at certain times, prefers it to something else, and they have found them working in redwood when not any place else. I have seen a California type of house so badly riddled they had to tear it down. We know they like the sap of the redwood.

Would you recommend some treatment through your experience that is most economical and effective for the extermination of Subterranean Termites?

My experience does not go into that. There have been a number of thing found effective. A number of chemicals can be used—sodium, borax, chloride, magnesium and others. I have not kept up with the recent developments, not since the earthquake. My hands have been full since the earthquake.

Which is doing the most damage in Southern California, the subterranean termite or fungus?

They are generally so mixed together that it is hard to say. Fungi is the worst enemy the termite has, and yet the termite cannot live without fungi. The university men tell us they never find one without the other. The colony of termites cannot flourish without fungi, and fungi helps in their digestion of the wood. At the same time, if the fungi gets beyond his control, it kills out the colony. The conditions that are ideal for the subterranean termite are ideal for fungi, and that entails a saturated atmosphere, in a run-way; that is what the termite wants. Buildings have been built without regard to ventilation or conditions of that kind, where conditions for the growth of fungi are ideal.

I believe that the fungus will work and do more damage in a given length of time than any termite will do in this part of the country. I do not think this is true of the tropical termite.

That fungi that benefits the life of the termite, is that the fungi that attacks wood? I thought that fungi was very small and microscopic. Is not the fungi that attacks the wood different than this and larger in structure.

We have tried that out. There is the microscopic that does not attack wood, but our own termite does not cultivate that fungi. So far as I know it has never been found on our own particular termite.

Is there not a later report as to this theory?

I do not know the latest developments.

Has it been determined what effect open or full cell process of treating lumber has upon shrinkage?

No effect. The shrinking in lumber is due to the drying out. It is not the drying of the creosote, but the drying out of the moisture. The Edison Company carry poles for years before putting them in the treatment tank, to get rid of the moisture.

How about the ground treatment?

I believe it is not permanent. If you do an efficient job in treating a house, the chances are there will be no termites. I believe you can take the money and do a more efficient job in localizing where you find the termites. Doctor Light does not agree on that. If you are the right distance above the ground you can easily keep track of them. I believe it would pay to go in and white-wash everything under the house.

Will the proper ventilation practically eliminate fungi?

Yes, to a great extent, for the fungi cannot live on the termites of the wood.

Will not fungi attract moisture?

Yes, I think so.

That would indicate if you keep moisture away there is nothing to attract?

The ventilation must be effective to keep it away.

Is the pit in lumber not caused by the way it is cut?

There is a great difference how timber is cut in the log. If you find a 6x6 badly twisted timber, you almost invariably will find a pit.

How about the building restrictions of Pasadena in relation to the extermination of the termite?

It is very simple. We haven't seen much reason to make a change. There is no timber within six feet of the ground and it gives a chance to walk up and keep out the termites. There is one further provision I think would be good, that is to run continuous reinforcing rods around the foundations and around the cornice and every place else. The concrete is like wood, in that it does shrink, and the walls will crack every fifteen or twenty feet unless you put in reinforcements to stop it, and that crevice is a good place for termites. They can come right through the cracks and go right to the timbers without hesitation. A couple of light bars will prevent it from opening at the top. Having them at the bottom is good, too.

What is dry rot?

The fungi destroys the structure of the wood cells and the wood goes to powder. Wood that is completely immersed in water is completely immune.

Will fungi attract moisture during its growth?

Yes, I think so.

Election of Officers of McCormick & Co., Inc.

Charles Perry McCormick was re-elected President of McCormick and Company, Inc., at the board of Directors' meeting held in March, 1935, immediately following the annual stockholders' meeting.

Mr. Norman C. Settle was elected to the board of directors to succeed Mr. Harry C. Dill who resigned due to absence from the city. In addition, Mr. Fred W. Ensey, Mr. Walter Davis and Mr. J. Grayson Luttrell were elected Second Vice-Presidents. The remaining board, re-elected, include: Mr. Charles P. McCormick, President; Mr. Roberdeau A. McCormick, Mr. Hugh P. McCormick and Mr. George M. Armor, Vice-Presidents; Mr. William Lee Bean, Secretary-Treasurer; J. Grayson Luttrell, F. W. Ensey, W. M. Davis, C. L. Fardwell, F. H. Long, F. A. Davis and N. C. Settle.

Mr. Charles P. McCormick, in commenting upon the past year's business, was enthusiastic about the results of the past two years and said that business was well ahead of 1933, with an increase of over a million dollars in sales during the past 2-year period. The many policies, adapted by Mr. McCormick, have worked to the benefit of the company and employees, and a bright future is anticipated.

Chemical Industry Medal Award

The American Section of the Society of Chemical Industry announces that the award of the Chemical Industry Medal for 1935 has been made to Dr. Edward R. Weidlein, Director of the Mellon Institute of Research at Pittsburgh, Pa. This award is made annually to a person who has made a valuable application of chemical research to industry, primary consideration being given to applications in the public interest.

Presentation of the medal will be made at a meeting of the Society of Chemical Industry in the fall.

Radio Makes Mouse Sing Like a Canary

Mansfield, Ohio.—Ever hear of a singing mouse? Mrs. Steve Keiser, who lives north of here, told today of a mouse that "sings like a canary," especially while the radio plays. Old-timers say singing mice are not uncommon.

Mrs. Keiser said she discovered the mouse recently when she investigated sounds coming from a woodbox in her kitchen. She found a mouse that emitted shrill, trilling notes and placed it in a cage where it now "sings" daily.

Rat Has Played a Destructive Role in History of Man

Dr. Hans Zinsser of the Harvard Medical School Writes Absorbingly of the Disease Carrier Which So Powerfully Affected the Destiny of Nations.

"Rats, Lice and History," by Dr. Hans Zinsser (Little, Brown & Co., Boston).

Rats!
They fought the dogs and killed the cats,
And bit the babies in the cradles,
And at the cheeses out of the vats,
And licked the soup from the cooks' own ladles,
Split open the kegs of salted sprats,
Made nests inside men's Sunday hats,
And even spoiled the women's chats
By drowning their speaking
With shrieking and squeaking
In fifty different sharps and flats.

The rats described by Browning were bold and savage animals. But though their collateral descendants do not trouble the western world as they did the good people of Hamelin, they still manage to do us a terrific amount of damage. Probably few persons realize that a Pied Piper who could rid us forever of these destructive pests would save the citizens of Germany 85 cents a year per person; of France, over $1 apiece; of Denmark, about $1.20. In England the damage rises as high as $1.87. In the United States, as recently as 1909, urban populations sustained an annual loss of about $1.27 per person. Each rat on a farm costs the farmer about 50 cents a year. A single rat can eat as much as forty to fifty pounds of corn a year. Hotel managers charge $5 a year to each rat.

According to Dr. Hans Zinsser of the Harvard medical school, who quotes these figures in "Rats, Lice and History," they indicate but a fraction of the injury rats continue to inflict on mankind. "From the point of view of all living creatures," Dr. Zinsser says, "the rat is an unmitigated nuisance and pest. There is nothing that can be said in its favor. It lives anywhere and can eat anything." Only when it cannot steal the habitation of some other animal will it trouble to burrow for itself. It not only steals their dwellings, but slays the unfortunate owners.

Diseases Carried by Rats

Dr. Zinsser, who has been engaged for some years in researches on typhus fever, is primarily concerned in this fascinating book with the effect which diseases carried by rats have had on the course of history. However, he cites information obtained from the United States department of agriculture to show how serious their depredations are in other respects.

They destroy seeds, sprouts and ripened grain, and have been known to cause famines. Domestic poultry and wild fowl are a favorite prey of rats, who eat enormous numbers of eggs as well as the birds themselves. Their sharp teeth find their way through books, leather goods and cloth, as well as all kinds of foodstuffs, destroying vast quantities of merchandise. By gnawing wood, pipes, walls and foundations, they cause serious damage to buildings. They have been known to start floods by gnawing holes in dams; they start fires by gnawing matches; they have bitten holes in mail sacks and eaten the mail.

Rats kill young lambs and gnaw swine. Hagenbeck had to kill three elephants because rats had gnawed their feet. "Babies in their cradles" have actually had their noses and ears nibbled by rats, and Dr. Zinsser recalls the well-attested story of the man who was attacked and devoured by starving rats in a disused coal mine.

Bubonic Plague and Others

Diseases spread by the rat include bubonic plague, typhus fever, trichinosis, ratbite fever, infectious jaundice, possibly trench fever. To other animals to probably communicates foot-and-mouth disease and a form of equine "influenza."

It may shock those of us who pride ourselves on modern standards of sanitation to realize that rats are on the increase in many parts of the world, even the "civil-

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ized" world. It is estimated that there are about 40 million rats in England at one time. As disease carriers their menace would be far greater, Dr. Zinsser believes, were it not for the modern system of separate dwellings and private basements which has supplanted the medieval system of intercommunicating cellars and sewers through which rats migrated at will, carrying with them the germs of epidemics. Modern rats, Dr. Zinsser says, "remain contentedly at home, and as a consequence of this, plague foci among them remain restricted to individual families and colonies."

Dr. Zinsser draws a grimly amusing parallel between ratkind and mankind, especially as respects their social relations with other animals. "The natural history of the rat," he says, "is tragically similar to that of man." It is "practically omniverous. It eats anything that lets it and—like man—devours its own kind under stress. It breeds at all seasons and—again like man—it is most amorous in the springtime.

Develops Racial Prejudices

"It hybridizes easily, and, judging by the strained relationship between the black and the brown rat, develops social or racial prejudices against this practice. It makes ferocious war upon its own kind, but has not, as yet, become nationalized. So far, it has still stuck to tribal wars, like man before nations were invented. If it continues to ape man as heretofore, we may, in a few centuries, have French rats eating German ones, or Nazi rats attacking Communist or Jewish rats; however, such a degree of civilization is probably not within the capacities of any mere animal."

Estimates of the lifetime of rats, based on stages in the development of the nervous system, show a close parallel between the life cycles of men and rats. They are adapted to any climate and all seasons, though they avoid Arctic weather.

Continuing this devastating comparison, Dr. Zinsser points out that "neither rat nor man has achieved social, commercial or economic stability. This has been, either perfectly or to some extent, achieved by ants and bees, by some birds and by some of the fishes in the sea. Man and the rat are merely, so far, the most successful animals of prey. They are utterly destructive of other forms of life. Neither of them is of the slightest earthly use to any other species of living things. Bacteria nourish plants; plants nourish man and beast. Insects, in their well-organized societies, are destructive of one form of living creature, but helpful to another.

"Most other animals are content to lead peaceful and adjusted lives, rejoicing in vigor, grateful for this gift of living, and doing the minimum of injury to obtain the things they require. Man and the rat are utterly destructive. All that Nature offers is taken for their purposes, plant or beast." —Kansas City Star.

Mouse in Drink; He Asks $950

Wichita Falls, Tex.—E. F. Morse, Wichita Falls, filed suit against a bottling company here because a drink he purchased contained a full-grown mouse.

Morse says in the petition that he had consumed half of the drink before he felt something touch his lips. He investigated and found the mouse. He is asking for $950 damages.

Nature's Lesson Book

By ERLING LUND

Nature is a lesson book, its wonders proclaiming the power, wisdom and love of the Creator. We see them manifested as we scan its pages, in the remarkable intricacies of the physical structure of plants and animals, but even more so in the cleverness and problem-solving ability which many apparently insignificant creatures display. Thus a number of insects use mechanical devices in their work, show remarkable skill in building, engage in agriculture and stock raising, and reveal an ability in organization quite as wonderful as the more well-known accomplishments of the higher animals.

"The ants are a people not strong," declares Solomon, yet they are wise, for "they prepare their meat in the summer." A colony of ants is a very complex institution, in which every member has a definite part to play, with all working together for the benefit of the group. They exemplify the value and power of faithful cooperation. Each ant seems to know his duty in bringing in food for the colony, building up the ant heap, and caring for the young.

However, the activities of this interesting insect are not confined to the mere gathering of food supplies that it may find already prepared. Some varieties of ants also engage in "dairying" and agriculture.

For example, we often see rosebushes or other shrubs covered with black aphids, or plant lice. On looking closer at such a bush, we will also find a considerable number of ants running about the stems and branches, displaying much activity. These aphids are the "cows" of the ant heap. They secrete a sweetish substance of which the ant is very fond; therefore they are kept and cared for as a farmer would care for his milch cows. The worker ants carry them about the bush, keeping them on the most favorable "pasture," and collecting the "milk," which is used especially to feed the young ants, or larvae.

In the Brazilian forests there is found an ant—called atta sexdens—that raises mushrooms. These insects live in large mounds. To form a good "soil" for their mushroom plantation, the workers go out into the woods and collect bits of leaves. In the mounds these leaves are rolled into small, damp lumps, and the mushrooms are planted upon them, thus providing a very efficient "garden."

When a queen ant wishes to migrate and start a new colony, she must make provision for a new mushroom plantation, in order to have food for her young when they hatch. Therefore, she takes a mouthful of mushrooms along to plant on the location of her new home. This she fertilizes by a secretion from her own body, before it is planted and thus an ample food supply is ready for her young when they hatch.

Another interesting insect ability is demonstrated in the home-building customs of the Indian red ant. These creatures construct their nests by sewing together the living leaves of trees. To do this calls for some skill in both mechanics and engineering.

First, the ants must select a location for the proposed nest where the leaves are sufficiently large and plentiful, and so spaced that they can be drawn together into the desired shape. Having chosen the proper site for their new nest, they proceed to the work of construction, or rather assembling it. To draw the leaves together edge to edge is their first problem. An ant takes hold of the edge of one leaf with his hind feet, and of another with his mandibles, or jaws, and thus pulls them close enough to each other for the sewing. But many times the desired leaves are too far apart for one ant to reach across the intervening space. This difficulty the ants solve by forming themselves into a living chain, each ant gripping the body of the one in front of him, until they have a string long enough to bridge the distance. They can now pull the two leaves together.

The sewing calls for tools, and these ants have just what they need. Their larvae spin a sticky, silky thread for their cocoons. So one of the larvae is used for a "needle" to sew the home together. The seamstress touches the larva to the edge of one of the leaves, and instantly it spins a fine silk thread, fastening it to the leaf. She then picks the larva up and moves him to the edge of the other leaf, where the spinner again fastens his thread. Back and forth go ant and larva in this manner until their leafy mansion is securely fastened together. Surely Solomon could well commend these tiny creatures for their wisdom and industry.

Every one has seen the web of the common spider, which it spins as a trap for unwary flies. Both in Australia and in South America there are spiders which improve upon this by using a lasso to catch flies. This consists of a strand of web having a drop of sticky fluid on the end. This the spider holds ready to drop upon any unsuspecting insect passing beneath its perch. Thus it can capture flies on the wing and draw them into its web.

Certain kinds of wasps are ground diggers. They prey upon caterpillars, which they bury for food for their young. The usual procedure of such a wasp, after having tumbled a caterpillar into a burrow, is to scrape the dirt in over him and level it off by shuffling it about with his feet. A naturalist tells of watching one wasp which had invented an improvement on this method of leveling the ground. It picked up a small pebble in its mandibles, and used it as a hammer to pack the dirt down firmly and smoothly over its cache.

In our modern system of highly organized mass production, each individual workman has a special task to perform, that he may do that efficiently rather than scatter his energies in running from one task to another. Such an organization is the common beehive, in which each member has a special function for which he is peculiarly fitted.

The queen bee has only one duty, to lay eggs. This she does in vast numbers, keeping a stock of new workers constantly on hand to replace the old ones as they die off, and also providing extra bees to swarm and establish new colonies when the old hive becomes overcrowded.

The worker bees divide the tasks of the hive among them. Some act as foragers, going far afield to collect nectar and pollen from flowers. Others labor in the hive, reducing these materials to honey, beebread, and wax, building combs, storing away the

honey, and feeding the young. Still others stand guard at the entrance to the hive, ready to repel any wasp or bumblebee, or even a bee from another hive which might try to enter.

An exception to the rule of industry here are the drones, or male bees. These constitute a sort of leisure class, their only function being that of mating. In fact, they are physically unable even to feed themselves. However, their life of leisure is rather short. They are tolerated in the hive as long as food supplies are plentiful, but when these become scarce the worker bees expel the useless drones as cumberers of an efficient colony, leaving them outside to starve or freeze.

Another peculiar feature of the bee is the means of defense with which it is provided —namely, its sting. Instances are on record of bees stinging a horse to death. It would appear to be rather difficult for so small a creature as a bee to drive its sting through thick, tough horsehide. The explanation lies in the unique construction of the sting. It really consists of two shafts, barbed like fishhooks on the outside. These slide against each other inside a supporting sheath. Between them is a self-acting muscle, which spasmodically thrusts forward first one, then the other. Thus, if but the first barb or two have taken hold, the spear will work its own way in. The poison bag is attached to the rear of the sting and comes off with it, so that if the bee pulls loose from the sting, that makes no difference; the sting works its way in and discharges its poison just the same.

The honeycomb is itself a good illustration of economy both of space and of wax. Every cell in it is a perfect hexagon. Engineers know by mathematics that if one wishes to divide a given space into compartments, the six-sided shape will give the most storage space in proportion to the amount of building material used. No one will argue that a bee understands mathematics, yet he employs the most efficient plan possible in constructing his honeycomb. He has no instruments of precision, yet every cell is a regular hexagon, capped with a prism. How did the bee acquire such a skill?

"God's care is over all, from the glorious sun in the heaven to the little brown sparrow or the tiniest insect that has life." In the faculties and abilities of these tiny creatures of the insect world we may see a demonstration of the Creator's skill and wisdom quite as clearly as in the higher animals. —Youth's Instructor.

Hollywood, Calif. Actor Bit by a "Widow"

With a very sore arm and a still sorer finger, Warner Baxter, Fox Film player, was thankful yesterday that a "black widow" spider had been considerate enough to bite him on the little finger instead of in some more dangerous location.

Baxter awoke two mornings ago with a pain in his right little finger. A few hours later, when the finger began to turn black, he went to see Dr. William E. Branch, who pronounced the symptoms those of a "black widow" bite and administered treatment.—Los Angeles Examiner.

"A man is only as rich as he is contented."

"Rat Trouble" in Cable

San Antonio, Tex.—Outside plant maintenance men have run into a good many different forms of grief, especially those affecting cables, but it remained for Chris Boldt, a cable repairman, to discover a new kind. At least, it is new in San Antonio.

Chris, while testing cable pairs, opened a manhole at the corner of Howard and West Mistletoe. A moment or two later he hastened to the nearest telephone to call his supervisor, W. C. "Pat" Welch. He asked Pat to come at once.

Arriving at the scene, Welch found Boldt running up the sidewalk to meet him, with eyes as big as Eddie Cantor's. "I have run into something," he said, "that I have never seen before." Entering the manhole, Pat found a cable sheath full of holes which examination proved to have been gnawed by a rat. Fortunately, since the weather had been dry, no cases of trouble had developed. The animal had no interest in the paper insulation and copper wire inside the cable but had worked only on the lead sheath.

The rat is believed to have gotten into the hole through a tributary lateral from the manhole to a nearby building occupied by a poultry concern. He (or she) had not confined all efforts to merely one manhole, but had worked on several others within a radius of two blocks, going back and forth through the conduit. Cablemen are still searching feverishly for damage, before cable failures develop, and so far have found plenty.

To date the rat has not been caught, with the cable sheath and similar effective Various solutions to prevent future trouble have been suggested — mixing rat poison ideas—but so far, no one has been able to sell Western Electric on them.—Southwestern Telephone News.

Everybody dislikes kerosene odor.
Progressive Exterminators are
therefore turning to

SPRAYSENE

THE SCIENTIFIC INSECTICIDE BASE
Free From Kerosene Odor
Safe Flashpoint of 175° F. Minimum

•

Di-Bug Pyrethrum
Powder and Extracts
enjoy a reputation for excellent kill

Sherwood Petroleum Company, Inc.
BUSH TERMINAL • BROOKLYN, N. Y.
Branches or Agents in Principal Cities

PHOSPHORUS
PASTE for PESTS
Exterminates
WATER BUGS and ROACHES
RATS and MICE
SOLD ONLY IN BULK TO THE TRADE
Liberal Trial Size Sent Prepaid for $1.00

Senco Rat and Roach Paste
A rat and roach paste packed in three-colored, lithographed cans

Prices
15—1-pound Cans $8.00
Your cost per can..... $0.53⅓
Retail Price 1.00

15—6-ounce Cans $4.00
Your cost per can..... $0.26⅔
Retail Price ..... .50
Freight Prepaid

For $1.00, if you will enclose check with order, we will send you one $1.00 can and two $0.50 cans of SENCO PASTE prepaid. The retail value of this merchandise is $2.00. Limit, one trial order to a customer.

SENNEWALD DRUG CO.
800 Hickory Street St. Louis, Missouri

INSECT LIFE IN RELATION TO PUBLIC HEALTH

(Continued from page 7)

workers do the work of the community, they build the nest, keep it clean, care for the food for the queen, procure the food for her and the larvae; they care for the eggs, they fight battles and do many other things to contribute to the progress and comfort of the ant community.

The greatest nuisance of them all is the household or black-ant variety. There are many methods employed in ridding the household of ants. The use of syrups mixed with arsenic, ordinary tarter emetic mixed with four or five times the volume of syrup and placed about in shallow dishes is also quite an effective exterminator. The ridding of ants permanently, however, can only be accomplished by locating their nests and treating them in such a way that the queen will finally be destroyed; then no more eggs will be laid and the production of workers will cease. One of the best substances for treating nests in order to kill the queen and exterminate the workers is carbon bisulphide. It is often difficult to locate the nest. For example, it may be discovered in the foundation walls or under the floor or in some equally secluded and protected place.

The next in order is the clothes moth, which were introduced here by our forefathers from European countries. I haven't much time to discuss that branch of it. And the same holds true with reference to the fleas, of which many of them are classified specimen.

A discussion of the flea, of course, is part of a rodent control discussion and I will leave it to the speaker dealing with that subject to develop. But for immediate purposes I will say that from a public health point of view the rat flea, the carrier of Bubonic Plague and known as vici oticus or chopus, is of great concern to us in California. In a recent survey conducted at San Pedro there were found an average of 2.25 fleas per rat caught in docks; 3.77 caught in business, residential and industrial plants; 6.46 per rat in open fields and 2.69 per rat caught in trash dumps, indicating that our next foci for plague will not come from cities or closely built communities, but we may rather look for it to originate from the squirrel and open fields.

Damp weather conditions have a bearing on the longevity of the flea and the popus flea index indicates too low an index to sustain an epidemic of rat plague. This, of course, may be attributed to the persistent rodent control campaign conducted by the Los Angeles Health Department. No such campaign is being conducted in the open fields and the result is that we find squirrels and rats are quite infested with fleas of the plague carrying type.

Also I may mention the carpet beetle. The beetle exists, but the average household or householder is not very familiar with it. They, as a rule, will be found under carpets that are tacked to the floor.

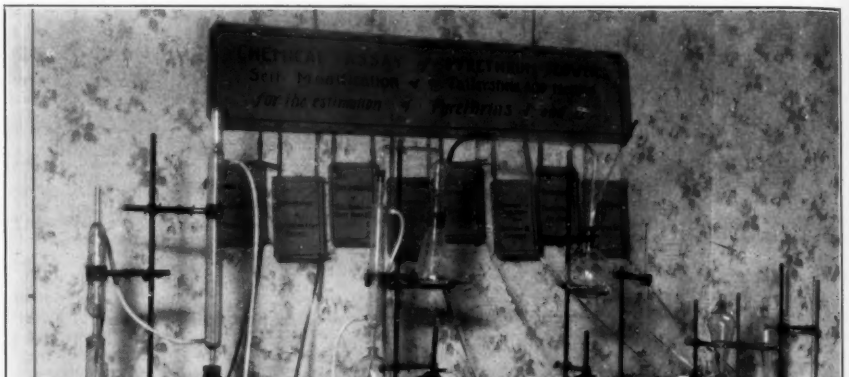
Then comes the fish moth or the silver fish. These are quite prevalent in Los Angeles and Southern California at the present time. They may be best controlled by the use of airy, dry rooms for the storage of floss or valuable papers, if one wishes to preserve them from injury by these fish moth. The use of buhach powder is suggested. Fresh buhach should be sprinkled freely on the shelves and on the books themselves. Moreover, this treatment should be given frequently where these pests are abundant and persistent because the powder soon loses its potent strength. In badly infested houses, starched clothes, stiffened silk and similar fabrics of rayon should not be allowed to remain too long packed away in drawers or loose in chests or boxes.

The next pest of importance from a public health point of view is the body louse. You may or may not be directly or indirectly concerned with it, but you should be in your field, for the body louse, and none other, are the causative hosts and carry the micro organisms that produce typhus fever in man. Of late much research has been done and typhus is attributed to the rat. It is impossible for me to go into details and I think I have used up my schedule or allotted time, so I thank you very much for the opportunity of addressing you.

Japanese keep crickets as watchdogs. Any sound at night causes the crickets to cease chirping, and the family is startled awake by sudden stillness.

Chemical Assay for Pyrethrum Flowers

There are two recognized methods for estimating the Pyrethrins content of Pyrethrum Flowers and Concentrated Extract of Pyrethrum, namely, the Tattersfield test and the Gnadinger test. The Tattersfield test in turn has two methods, namely, the Tattersfield long and the Tattersfield short. The long method is described chemically as an acid reduction method; the short as a ferricyanide reduction method. The Gnadinger test is a copper reduction test. The Tattersfield test is accepted by chemists the world over and is used generally by the Department of Agriculture at Washington. Dr. Harvey F. Seil, a prominent New York chemist recently modified the Tattersfield test and published his work in the scientific press; this likewise enjoys the acceptance of recognized chemical testing laboratories and to demonstrate to insecticide manufacturers the eight different processes S. B. Penick & Company arranged to exhibit at the last meeting of the National Insecticide and Disinfectant Manufacturers Association at the McAlpin Hotel in New York, the set-up as shown by the illustration.



The exhibit included specimens of growing Pyrethrum plants about three months old which were furnished by the Bureau of Plant Industry of the Department of Agriculture. The exhibit likewise included specimens of various grades and milling of Pyrethrum Flowers, Derris and Cube Roots and together with the Extracts of various strengths.

The exhibit was very favorably commented upon, and the various visitors and chemists had the opportunity of observing the working of this somewhat complex assay about which many manufacturers are only generally familiar.

White House Is Rough on Rats With a Vengeance

Washington.—The rats that worry the White House housekeeper are finicky about their food.

Some of them are wild about meat, others like vegetables best.

F. N. Jarvis, the government's ace exterminator, conqueror of the prickly porcupine problem of Pennsylvania and master of mice and moles, tries to please them all.

The last time he arranged the menu there were three dishes on it—a cereal, canned fish and hamburger. Each was seasoned generously with red squill, which is tough on rats, but doesn't poison other animals.

Mr. Jarvis, who has an office in the Agriculture Department, began warring on the White House rodents when the roof of the building was raised during the Coolidge administration.

Local Organization News

Milwaukee Association Is Organized

Regardless of personal prejudices that may have existed among some of the firms of Milwaukee, a policy was adopted, in view of the small number of firms in Milwaukee, to invite all to participate in discussions that may prove of mutual advantage for all. As the men became better acquainted with each other and discussed the uselessness of continuing a practice of chiseling and cut-throat methods, the inevitable resulted.

Seven firms now constitute the "Milwaukee Association of Exterminators and Fumigators." The officers elected are:

President, Harry J. Hammond, W. P. Hammond & Son, Inc.

Vice-President, George Klein, Klein Exterminating Co.

Secretary and Treasurer, W. H. Last, Last Exterminators.

Trustees, Henry Turrie, Will-Kill Exterminating Co., John Kourt, Milwaukee Exterminators.

Harry Hammond recently stated in a letter: "Several meetings have been held and it looks as though we might get places." Congratulations, and best wishes for success always.

New York Society

The New York Society of Exterminators and Fumigators will conduct an open meeting for the entire industry of New York City. The easiest way to tell the story is to read the general invitation which was sent to the industry.

Exterminators and Fumigators
of New York.

Gentlemen:

In the interest of a Safer, Better Informed, More Efficient, and a More Profitable Industry, you are cordially invited to attend a Great - Get - Together - Get - Acquainted-Dinner to be held on Tuesday evening, May 14th, at 6:30 sharp; in the spacious dining room on the 26th floor of the Building Trades Employers' Association, No. 2 Park Avenue, New York City, where a delicious Turkey Dinner will be served for One Dollar ($1.00) per person.

Five 10-minute addresses by members of our industry on vital topics.

"Our Trade Association; What It Should Mean to Our Industry," By Sidney Apfelbaum, General Exterminating Co.

"The Law Governing Our Work (Sec. 104) and the Penalty of Disobeying It," By Nathan K. Concannon, our Executive Secretary.

"Price Cutting, Its Fallacy; Where Will It End?" By William O. Buettner, Oscar G. Buettner & Son.

"Rat Poisons — Dangers, When and Where Not to Use Them," by C. H. W. Hasselreis, Ratin Laboratories.

"Fumigation — It's Hazards and How to Operate Safely," By Henry W. Mahler, Mahler Exterminating Co., Inc.

It is hoped that everyone holding an owner-exterminator or fumigator permit will plan to be present with his lady and guests.

Reservations must be made by May 10th. Please send check for number of dinner tickets to Nathan K. Cancannon, 840 Eighth Avenue.

Looking forward to having the pleasure of seeing you on this occasion, we are,

Most cordially yours,

William J. Shrimplin, Pres.
Sidney Apfelbaum, Vice-Pres.
Frank Rausch, Treas.
Irving H. Josephson, Sec.
Nathan K. Concannon,
Executive Secretary.

SOCIETY OF EXTERMINATORS
AND FUMIGATORS OF NEW YORK.

Rat Bite May Kill 2 Children

Carmi, Ill. — Two daughters of Albert Williams, one three years old and the other only six months, are near death from a rare disease caused by a rat bite. Dr. R. C. Brown described the ailment as rare here, but common in Asiatic countries. The children were bitten in August, but the disease developed slowly, causing fever and glandular disorders.

HOPKINS' • BIOLOGICALLY TESTED • INSECTICIDES

CROW BRAND PYRETHRUM CONCENTRATES

Our highly concentrated Pyrethrum Extracts are manufactured by a COLD PERCOLATION process, which insures UNIFORMITY and does not impair the toxic value of the Pyrethrins. Keeps to a minimum the extraction of vegetable dye and inert matter, an important advantage from the standpoint of staining. Moreover, these Concentrates do not precipitate while standing.

CROW BRAND INSECT POWDER

Made from high-testing grades of Dalmatian or Japanese Pyrethrum Flowers. Milling operations are conducted in our own plant. Our Powders are suitable for repackaging—or for use as ingredients in your own Powdered Insecticide—or for the percolation method of extraction.

ODORLESS CONCENTRATE

All-purpose non-poisonous Concentrate for use in electric vaporizing machines, odorless fly sprays, greenhouse clean-up sprays and special insecticides for Dairy and Food Plant use.

"THEY SELL BECAUSE THEY KILL"

REDRATSQUIL

Sold in Powder form and also in Liquid Extract form. Highly effective against rodents, but harmless to human beings and domestic animals.

PYRETHRUM SOAP

A Concentrated Agricultural Insecticide. Sold in semi-solid form, to be diluted with water at time of spraying. Sold in bulk for repackaging under your own brand.

ROACH AND ANT POWDER

For deadly, sure-kill results. This product contains a combination of powerful insecticides. Sold in bulk only.

HOPKINS' MOTHPROOFING COMPOUND

Kills not only the moths, but the eggs and larvae as well. Penetrates instantly, leaving no stains. Mothproofs fabrics indefinitely. Sold in bulk.

DERRIS POWDER AND EXTRACT

Sold in bulk—in either form—with a guaranteed Rotenone content.

DERRITOX POWDER

A product for use against fleas, lice and vermin. Contains Derris, Pyrethrum and other active ingredients. Non-poisonous.

DERRITOX SHAMPOO

A Liquid Shampoo, ready for use on animals. Highly effective as a vermin killer; containing excellent cleansing properties.

"Quality is remembered long after price is forgotten"

J. L. HOPKINS & COMPANY • 220 Broadway • NEW YORK

INSURANCE

At the request of the Log, William O. Buettner, Secretary of the National Association, has submitted additional information on the problem as a follow-up to the article that appeared in the April issue of the Log.

TO THE EDITOR OF THE LOG:

We shall be pleased to co-operate with you on the subject of insurance about which many in the industry desire to know. As you know, the article that appeared in the Log last month was also sent as Communication No. 10 to every firm throughout the country that is on our mailing list. We might say in passing, that if there are any firms that have not received a copy, it was not intentional, and if request is made, we shall be pleased to send a copy.

It is encouraging to note the response made to the communication that has been sent to all firms. In the next issue of the Log, it is our intention to present a summary of some of the reactions that are to be gleaned from the replies received.

One of the unfortunate things about the rates as announced is the injustice that these rates are for industrial fumigations. The firms that do industrial fumigations often run as high as ten million cubic feet for a year. Obviously the rate of 10 cents per 1,000 cubic feet over the maximum allowance of two and one-half million cubic feet of the basic rate of $250 for fumigation insurance is unfair. An adjustment has been assured, but the criticism of the firms that have answered our letter is that this is too vague. Firms desire to know the actual rate that is to prevail. A conference was held today (May 3, 1935) with the National Bureau of Casualty and Surety Underwriters, at which our complaint was taken up. It is hoped that a definite rate for industrial fumigations will be forthcoming shortly.

It will not be our purpose to go into the details of the comments received in the correspondence. This will be covered in the next issue when apparent inequities as well as reasons for some of the items will be taken up. The difficult problem is still that of securing insurance companies to write our type of liability insurance, not so much for exterminating, but more so for fumigating.

Just as soon as definite decision is made as to a sliding scale of rates for industrial fumigations, as well as a few other details are disposed of, it is expected that concrete information will be forthcoming.

NATIONAL ASSOCIATION OF EXTERMINATORS AND FUMIGATORS

National Association Notices

Communication No. 11.—This communication was sent the early part of May to the membership and covered the usual items that would be of interest to the membership. If any member has not received a copy, please communicate with the Secretary.

"Don't Tolerate, Exterminate." — It is with interest we note the exclusive slogan of the Association making its appearance in advertising matter and letterheads, together with the use of the seal. We encourage all members to do this.

Membership List and Constitution and By-Laws.—Both of these are available for the membership. More and more members in other cities desire to correspond with other members. In several instances we note that member firms are being recommended in other cities. It is not uncommon for a member to request the name and address of a member in another city to offer a job.

Insurance.—A special communication will soon go forward to all firms that have made reply to Communication No. 10.

Convention.—Hotel Statler, Detroit, Mich., October 21-22-23. This reminder is constantly being made so none will find excuse for not knowing the dates.

Small and Large Cuts of the National Seal: These are available for all members at $1.00 each. Here again the members are making the public conscious of the worthwhileness of dealing with a member of the National Association.

Application for Membership: Membership is open to any firm whether it be one-bag man, small or large firm, so long as honest effort is made to conduct "Quality" business which can only be expressed in rendering satisfactory services, and at prices that allow for satisfactory work to be done. Application form may be secured from the secretary and further information will be given on request.

LARVACIDE
CHLORPICRIN
REGISTERED

LIKE AN X-RAY

This heavy invisible gas drives through clothing, mattresses and furniture, and deep into tiny cracks and crevices. It kills eggs, larvae, adults, vermin and many kinds of germs.

Larvacide is over 5 times heavier than air and has the driving force to reach insect life wherever it can live. That's why you can be sure of a thorough job when you use Larvacide for household and commercial fumigation. Furthermore, this tear gas fumigant gives added protection to your operators and customers because of its inseparable warning quality. Facts on penetration and safety are given in "Safe and Sure." Send for your copy today.

INNIS, SPEIDEN & CO. INCORPORATED
117 LIBERTY STREET, NEW YORK CITY
CHICAGO CLEVELAND KANSAS CITY
INDUSTRIAL CHEMICALS SINCE 1816

PENETRATING

NO-DOR

Bad Odors KILLED

NO-DOR is a chemical.
NO-DOR is not a perfume.
NO-DOR chemically deodorizes all odors due to organic decomposition.

NO-DOR is recommended for the following, Toilets, Garbage Cans, Stench Bombs, Sick Rooms, Mortuaries, Meat and Fish Markets, Dead Rat Odors.

SAMPLES AND INFORMATION UPON REQUEST

PFALTZ & BAUER, Inc.
300 PEARL ST. - NEW YORK

Picked Up From Here and There

Black widow spiders are quite troublesome on the west coast. It is interesting to note that two speakers dealt with this problem at the California State Convention of Exterminators and Fumigators. Norman Dold enjoyed his visit at the office of Jesse M. Miller in Los Angeles and was initiated into Mrs. Miller's hobby of raising black widow spiders.

Milton Oachs of the Ozane Company of New York recently purchased the service business of United States Exterminator Co. of the same city. This makes the third or fourth company that Milton has absorbed. Best of luck to you.

If perchance any firm has not received a copy of "Our Modern Insecticide," recently published by John Powell Co., 114 East 32nd Street, New York City, we would suggest sending for a copy. It is free for the asking.

Along the same thoughts expressed in the previous paragraph the R. & H. Chemicals Division of E. I. du Pont de Nemours & Co. is offering free of charge helpful advertising folders. These folders point out the value of fumigating with Hydrocyanic Acid Gas. The titles of these folders are: "The Pest Menace Can Be Controlled" and "Fumigation Protects Life and Property Against the Pest Menace." Fumigators, this is your opportunity.

Word comes from reliable sources that Harry Studier of Cleveland is getting married in June. We will be expecting the official announcement almost any time now.

San Diego, California, is busy with preparations for the big fair this summer. Incidentally the Alderman Company has the contract for the control of ants on the Exposition grounds. What an opportunity this would be for a few of the boys to gain some pointers in outdoor insect control.

Talking of California reminds us of the continued good words we are still hearing about the successful state convention. Just a few sidelights by way of quotation, "It healed more sore spots; brought good men who had become faint-hearted back into line; convinced many a skeptic that the organization was very much alive and working for the interests of the industry." More of these regional conventions would create good will.

Walter McCloud of Chicago and George Sanders are among the contributing editors to magazines. The "Chicago Building Managers" contains the article on Pest Control and George Sanders was much in evidence with the interview article in a recent copy of The New Yorker.

Ed Arnott of Indianapolis, Ind., has had a busy time at the "Home Complete Show" for ten days. Hope you had many leads, Ed. This also recalls the termite exhibit of the Guaranteed Sanitation, Inc., of New York City, at the Flower Show and "Better Homes Exposition." Sam Rosen, president of the latter company, will be busy for the next six months merely investigating termite leads.

Let us not forget the interesting "Three Ring Termite Circus" Alfred Zimmer, of the Temple Lumber Company, conducted at the Second Annual Texas Agricultural and Industrial Exposition. The story is elsewhere.

While on this general subject of articles, expositions, etc., we wonder if many in the industry are availing themselves of speaking engagements before real estate boards, Lions Clubs, Rotary Clubs, Chambers of Commerce and numerous other organizations who are anxious to learn more about pest control? C. Norman Dold spoke before the Central Lions Club of Chicago, April 30. Incidentally, Norman is past president of the Central Lions Club.

It HAPPENED in the Western Division

Oakland, Calif.—After attending the California State Convention in Pasadena, on March 16th, Mr. Stennett S. Heaton, owner of the S. S. Heaton Exterminating Co., 2339 East 19th Street, Oakland, Calif., decided that the time to join the State and National Associations was right now, so he wired for an application which has been forwarded to the membership committee for final approval.

San Diego, Calif.—Recently the Alderman Company, of which Mr. L. R. Alderman is president, and who are specialists in ant control and plant fumigation, closed a contract to service the Pacific Exposition grounds, covering an area of about 1,000 acres of beautiful landscaped gardens. We wish to extend a glad hand to our successful member.

Denevr, Colo. — Professor D'Amour, of the University of Denver, has recently been successful in perfecting a serum as an antidote for the venom of the poisonous "Black Widow" spider. It is now being used in several leading hospitals of the Western States.

Hollywood, Calif.—J. M. Miller, president of the J. M. Miller's Pest Control System, Inc., announces the opening of a new office at 1631 North La Brea Avenue, Hollywood, Calif.

San Francisco, Calif. — From the latest reports from Mr. Chas. Menard of the Rose Rat Exterminating Company of San Francisco, the Exterminators and Fumigators are organizing a local Association and expect to join the National Association in the very near future. Success to you, fellows.

Los Angeles, Calif.—We wish to congratulate Mr. E. D. Smith, owner of the Pacific Exterminating Company, 2203 Sunset Blvd., Los Angeles, Calif., on his fine judgment in becoming a member of our organization. Mr. Smith has been in the exterminating business since 1932.

Pasadena, Calif.—Recently received word that Mr. W. F. Smith of the Alderman Company, was found pulling out a whale of a fish near Santa Catalina Island. However, the editor is inclined to believe that this is just another fish story.

Also for those who are looking ahead: Wilbur Smith of The Alderman Company mentioned that the 1936 California State Convention will be held at Fresno, Calif. Those interested might write for the dates.

The industry would do well to read the April, 1935, issue of "The American Miller," which is termed the "Insect Control Number."

Mr. Harper, one of our California Directors, has this to say about the coming convention, "If the Detroit Convention is as successful as our State Convention in Pasadena it will be a humdinger."

There is a rumor that Mr. Jorgenson, one of our directors of California, will discuss "Rats" at the Convention. They say, "That fellow knows two things — rats and perfumery. Peculiar combination, indeed—maybe he had to perfect the latter to overcome the effect—the after effect—of his exterminating of the first." We hope he will tell us about it at the Convention.

New York is becoming Convention minded. The American Airways is offering attractive round trip rates. Do not be surprised to hear of some of the "boys" indulging in a little "high flying" while on their way to Detroit.

There seems to have been an unofficial gathering of the industry at Miami this year. Those of New York who vacationed in Florida have all returned with the exception of Nathan Sameth of the Sameth Exterminating Co. He is due back May 2nd.

Abbot Exterminating Co. of 17 East 42nd Street recently acquired the business of the Madison Exterminating Co. of this city. Good luck, boys.

The Guarantee Exterminating Co. of 500 Fifth Avenue, is conducting a series of experiments on rodent control. These tests are being supervised by E. M. Mills, U. S. Biological Survey, the results of which should prove interesting to the entire industry.

Guy S. Mordan and Norman Snyder have purchased American rights to Perm-O-Tect, a chemical widely used in Europe and Canada, in treating furniture, rugs, etc., to make them immune from moths. The first retail store of what is expected to develop into a national chain of similar outlets for the sale of this product has been opened at 296 Delaware Ave., Buffalo, N. Y.

Mr. Joseph Pero of the American Exterminating Co., New York City, is spending a few weeks' vacation in Yulan, N. Y.

Every member of the trade, who does a package goods business, should obtain a copy of "OUR MODERN INSECTICIDE." This is a thirty-two page booklet, on household insecticides. It is intended and written for the consumers. It tells the story of pyrethrum and its purpose in insecticides. It describes, by illustration and word, the many common household insects. This booklet carries no names, nor mentions any brands. It was prepared by John Powell Co., of 114

(Continued on page 18)

East 32nd Street, New York City, and is copyrighted by them. John Powell Co. will furnish single copies free to all members of the industry who may request one, or supply a quantity at cost.

M. Rukin and C. Norman Dold, both of Chicago, are to be congratulated on their cooperation with the industry of their city as well as with the National Association, in an effort to bring about a better understanding among the firms. A series of luncheons have been arranged with the emphasis not being on numbers but rather on having a half dozen or a few more gather around a luncheon table to discuss their mutual problems.

The same idea is being followed out by William J. Shrimplin, president of the New York Society. This plan has many advantages in that the principals of many firms do not know each other. If competitors were to meet more frequently, perhaps there would be less tendency to resort to cut-throat methods.

With May 1, 1934, the firm of W. Benkert & Company, Inc., will be known as R. J. Prentiss & Co., Inc. This is merely an alteration of the corporate name and does not involve any change in their business policy, management or personnel.

At the same time they announce an expansion of their sales organization. Beginning May 1, 1935, Mr. A. W. Bevernick will join their sales staff. Mr. Bevernick, formerly with McLaughlin, Gormley King Co. is well known in the trade and has an extensive experience of over twenty years.

Items of Interest

Farmers Seek 'Piper' to Lure Away Rats

East London, South Africa. — Huge swarms of ferocious black rats are ravaging the ripening crops in the northern regions of the Transkei, and a super-Pied Piper is being sought.

The rats attack the crops by gnawing through the stems of fields of young maize and kaffir corn, and then eating the grain when it falls.

Spider Bite Kills Jersey Youth

Eugene Regan, 17 years old, of 220 Washington Street, Jersey City, died last Saturday at the United States Naval Hospital in San Diego, Calif., of poisoning resulting from the bite of a black widow spider, according to word received by his parents. Regan was bitten by the spider on March 18 while working at a Civilian Conservation Corps camp near Death Valley Junction, Calif.

The chinch bug is already stirring underground, in seventy counties of Illinois, and farmers are advised to pray for rain which drowns the bugs. Perhaps the little creatures have heard from Washington and seek to "do their part" by cutting down crops, and saving the farmers the trouble of plowing under.

Mice Blamed For Setting Home Afire

Memphis, Tenn.—Mice gnawing at a box of matches were credited with starting a fire which for a time threatened to destroy the home of W. C. Riley, 658 Bodley, just outside the city.

The fire department answered the call and ran a hose from a nearby pond from which water was pumped.

The store and frame dwelling of L. W. Moss at Barlow and Peoples Avenue was destroyed by fire recently. Firemen were unable to find sufficient water to supply the pumps.

"Friendship stops where borrowing begins."

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RATES — For individuals seeking employment, 5c per word, minimum $1.00. All others 10c per word, minimum $2.00. All advertisements must be in the hands of the publishers seven days before publication date and must be accompanied by cash or money order for payment in full. The publishers are not responsible for any false or misleading advertisements.

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Paints, Varnishes, Lacquers
Food Products, Beverages and Flavors
Inks, Carbon Paper
Crayons and Typewriter Specialties
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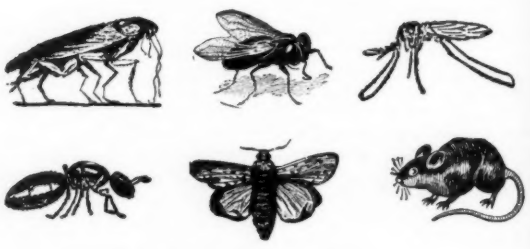

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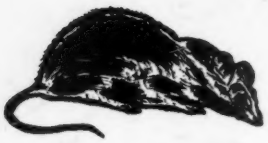

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